

REMARKS

Claims 1-31 are pending in the present application. In the Office Action mailed July 27, 2006, the Examiner rejected claims 1-5, 10-14, 16, and 17 under 35 U.S.C. §103(a) as being unpatentable over Fujikawa et al. (USP 4,798,082) taken with Hoyt, Jr. et al. (USP 4,465,920). The Examiner next rejected claims 6, 7, 15, and 18-31 under 35 U.S.C. §103(a) as being unpatentable over Fujikawa et al. taken with Hoyt, Jr. et al. as applied to claims 1-5, 10-14, 16, and 17 above, and further in view of Hoffman et al. (USP 5,453,939). Claims 8 and 9 are rejected under 35 U.S.C. §103(a) as being unpatentable over Fujikawa et al. taken with Hoyt, Jr. et al. taken with Hoffman et al. as applied to claims 6, 7, 15, and 18-31 above, and further in view of Sodermann et al. (US Pub. 2004/0155466).

The Examiner rejected claims 1-5, 10-14, 16, and 17 under 35 U.S.C. §103(a) as being unpatentable over Fujikawa et al. in view of Hoyt, Jr. et al. While Applicant respectfully disagrees with the Examiner's interpretation, Applicant has nevertheless elected to amend claim 1 to further clarify what is being called for in the current invention. As amended, claim 1 calls for, in part, a multifunction meter having a display unit with a plurality of displays thereon, and a processing unit configured to process feedback from an engine and from a power converter. The processing unit is further configured to digitally display data indicative of engine operation and power output of the power converter on the plurality of displays.

As shown in Fig. 2 of the present invention, the multifunction meter 56 of welding device is configured to include a display unit having a plurality of displays 56, 58 thereon. A processor 64 is also included in the multifunction meter 56 and processes feedback from the weld power generator 68 and engine 66 to display data indicative of power output and engine operation. *Application*, ¶20. This data is digitally displayed on displays 58, 60 of the multifunction meter 56. *Application*, ¶21.

Fujikawa et al. fails to teach, disclose, or suggest a multifunction meter configured to digitally display data indicative of power output and engine operation. At best, Fujikawa et al. discloses a control-display device 46 that includes a single LCD window 15 configured to only display power output data. That is, the device 46 of Fujikawa et al. is not configured to digitally display engine operation data in the LCD window 15. Rather, control-display device 46 simply outputs an indication of an engine operation malfunction by way of warning lamps 16, 17. These lamps function only as a warning system when an engine operation parameter crosses a threshold.

Specifically, the lamps light-up/flash when a low oil level or low fuel level is detected. *Fujikawa et al.*, Col. 2, Ins. 30-33; *see also* Fig. 2. These warning lamps 16, 17 clearly do not digitally display engine operation data. As such, claim 1 and the claims dependent therefrom are patentably distinct over the combination of *Fujikawa et al.* and *Hoyt, Jr. et al.*

Applicant has also elected to amend claim 12 to further clarify what is called for therein. As amended, claim 12 calls for, in part, a welding-type apparatus having a control panel configured to operate an engine and mechanical to electrical power converter that generates a power signal suitable for welding. Claim 12 also calls for a multifunction meter imposed on the control panel and configured to display engine condition data and power signal data. As shown in Fig. 1, welding device 10 includes a control panel 26 thereon. Control panel includes a multifunction meter 56 imposed thereon, the multifunction meter 56 configured to display data indicative of power output and engine operation. *Application*, ¶20.

Fujikawa et al. fails to disclose a multifunction meter imposed on the control panel of a welding-type apparatus. In fact, *Fujikawa et al.* specifically teaches away from such a configuration. That is, the control-display device 46 of *Fujikawa et al.* is specifically designed to make it possible for an operator to operate an engine-generator set E, and check the operating conditions thereof, from a remote location. *Fujikawa et al.*, Col. 1, Ins. 35-41. This is accomplished by connecting the control-display device 46 to the engine-generator set E by way of an extendable multi-core cable 48. *Fujikawa et al.* is a diagnostic tool designed for portability with regard to the unit connected thereto.

MPEP 2141.02 states that “[a] prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. (citing *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, (Fed. Cir. 1983)). Thus, the fact that *Fujikawa et al.* discloses a configuration that teaches away from what is called for in claim 12 cannot be ignored. In light of the teachings of *Fujikawa et al.*, that which is called for in claim 12, and the claims dependent therefrom, is clearly not taught disclosed or suggested in the cited references.

The Examiner also rejected claim 19 under 35 U.S.C. §103(a) as being unpatentable over a three-way combination of *Fujikawa et al.*, in view of *Hoyt, Jr. et al.*, and further in view of *Hoffman et al.*, stating that “at the time the invention was made,... it would have been obvious to

have used plural digital displays or a single set of meters as claimed, the motivation being the teachings of Hoffman et al. (5,453,939) that such is a useful approach for monitoring data associated with an engine....” *Office Action*, supra at 3-4. Applicant respectfully disagrees with the Examiner’s position regarding the teachings of the cited references.

Claim 19 calls for a method of monitoring a welding-type device including the steps of receiving data indicative of a welding-power signal and of engine condition, and of displaying the data indicative of a welding-power signal and the data indicative of an engine condition on a single set of meters.

As stated above, the Examiner relies on Hoffman et al. for teaching a system having “plural digital displays or a set of meters” configured to display power output data and engine condition data. *Office Action*, supra at 3. However, Hoffman et al. also fails to teach, disclose, or suggest a system having such a feature. Hoffman et al. discloses an instrument 10 having a set of digital displays 28, 30, wherein the instrument 10 can be set to a numeric readout mode that digitally displays the magnitude of sensed parameters. *Hoffman et al.*, Col. 25, Ins. 3-26. However, Hoffman et al. also discloses that when these sensed parameters are digitally displayed, only one of the displays is used for showing this data. That is, the level of a sensed parameter is only displayed on the digital display 28. *Id.* Display 30 does not display data indicative of a sensed parameter. Rather, display 30 is only configured to identify to an operator (via a numerical identifier) which specific parameter is visible in display 28. Thus, only a single display 28 in Hoffman et al. is configured to display power output or engine condition data, and this data can only be displayed for a single parameter at a time. *Id.* Therefore, even were the displays 28, 30 of Hoffman et al. to be included in the system of Fujikawa et al., such a combined system still would not include a set of meters configured to display data indicative of a welding-power signal and the data indicative of an engine condition as called for in claim 19. Only one display in such a combined system would be configured to display this data per the teachings of the cited references. As the cited references fail to set forth all of the elements set forth in claim 19, Applicant believes that claim 19, and the claims dependent therefrom, are patentably distinct thereover.

The Examiner also rejected claim 26 under §103(a) as being unpatentable over the three-way combination of Fujikawa et al., Hoyt, Jr. et al., and Hoffman et al. Claim 26 calls for a welding-type apparatus having a power source for generating electrical power, an engine for

providing mechanical power to the power source, a single set of meters to display volts and amps of the electrical power, and a means for on demand displaying of engine condition data on the single set of meters.

As shown above, claim 26 calls for the single set of meters to include a means for “on-demand” display of engine condition data. That is, displays 58, 60 of the multifunction meter 56 are configured to display data indicative of both engine operation and power output of the welding device 10. An operator can elect to display engine operating parameters such as RPM, engine temperature, and oil pressure in an on-demand manner by using a plurality of push buttons or touch-sensitive inputs 78, 80, 82, and 84 to select which set of parameters are indicated on displays 58, 60. *Application*, ¶21.

The Examiner stated that, regarding the rejection of claim 26, “[t]he only aspects of the claims to which the rejection [over Fujikawa et al. and Hoyt, Jr. et al.] does not apply are the provisions for: plural digital displays; the use of a single set of meters; and the storage data related to the unit being monitored.” *Office Action*, supra at 3. Thus, the Examiner asserts that Fujikawa et al. discloses a system capable of displaying engine operation data in an on-demand fashion. Such is clearly not the case. As stated earlier, the control-display device 46 in Fujikawa et al. includes only a single LCD window 15 (i.e., meter) configured to display power output data. That is, the device 46 of Fujikawa et al. does not display engine operation data in the LCD window 15. Rather, device 46 displays only an indication of an engine operation malfunction by way of lamps 16, 17. These lamps function merely as a warning system triggered by a breach of an engine operation threshold. *Fujikawa et al.*, Col. 2, Ins. 30-33; *see also* Fig. 2. The warning lamps 16, 17, are activated (i.e., light-up or flash) only if a circuit 57, 59 detects that there is a low oil level or low fuel level in the engine. *Id.* at Col. 5, Ins. 35-45. The operator cannot bring up engine operation data “on-demand” as is called for in claim 26. Thus, the control-display device of Fujikawa et al. is not configured to display engine operation data in an on-demand fashion.

Furthermore, the combination of Fujikawa et al. fail and Hoffman et al. fails to disclose a set of meters configured to display power output data and engine condition data. As argued above with respect to claim 19, the displays 28, 30 disclosed in Hoffman et al. are not both configured to display data indicative of power output and/or engine condition. *See Hoffman et al.*, Col. 25, Ins. 3-26. The level of a sensed parameter is only displayed on the digital display 28.

Display 30 is only configured to identify to an operator, via a numerical identifier, which specific parameter is visible in display 28. *Id.* Thus, only a single display 28 in Hoffman et al. is configured to display power output or engine condition data, and this data can only be displayed for a single parameter at a time. *Id.* Therefore, as stated above, even were the displays 28, 30 of Hoffman et al. to be included in the system of Fujikawa et al., such a combined system still would not include a set of displays configured to display power output data and engine condition data. Only one display in such a combined system would be configured to display this data per the teachings of the cited references. Thus, claim 26, and the claims dependent therefrom, are patentably distinct over the Examiner's cited references.

Therefore, in light of at least the foregoing, Applicant respectfully believes that the present application is in condition for allowance. As a result, Applicant respectfully requests timely issuance of a Notice of Allowance for claims 1-31.

Applicant appreciates the Examiner's consideration of these Amendments and Remarks and cordially invites the Examiner to call the undersigned, should the Examiner consider any matters unresolved.

Respectfully submitted,

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¹The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 50-2623. Should no proper payment be enclosed herewith, as by credit card authorization being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-2623. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extensions under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 50-2623. Please consider this a general authorization to charge any fee that is due in this case, if not otherwise timely paid, to Deposit Account No. 50-2623.